920673-907251

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of   :   Cian E. O'Meara

Serial No.   :   09/740,201

Filed   :   December 18, 2000

For   :   Allocation Of Location-Based Orders To Mobile Agents

Examiner   :   Andre D. Boyce

Art Unit   :   3623

Customer No.   :   23644

## REQUEST TO RE-OPEN PROSECUTION FOLLOWING DECISION ON APPEAL DATED NOVEMBER 6, 2009

Honorable Director of Patents and Trademarks
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir,

      In view of the Decision dated November 6, 2009 of the Board of Appeals and Interferences, and exercising the first option indicated by the Board on page 19 of the Decision, it is requested that prosecution of this application be re-opened, and that the application be amended as follows:

**In the Claims**

Claims 30-34 are cancelled without prejudice. Claims 1 and 35 are amended as follows:

1. (currently amended) A computer-implemented method of allocating a location-related order to one of a plurality of mobile agents, <u>said method being carried out by an ordering server and</u> comprising the steps of:

   a) maintaining a current order record identifying a first location and first time at which each agent is expected to become free to fulfill a new order;

   b) maintaining a prioritized listing of locations including both scheduled locations which an agent is currently due to visit and unscheduled locations which said agent is not currently due to visit, with locations in said listing being prioritized to rank both the scheduled and unscheduled locations for said agent according to availability of the agent to reach each location after said first time, said availability having been calculated for each location irrespective of whether or not said agent is currently due to visit a particular location in said listing;

   c) receiving said location-based order and recording the location and time at which said order is to be fulfilled;

   d) determining from said prioritized listing of locations a suitable agent to fulfill said order; and

   e) allocating said order to said suitable agent.

2. (previously presented) A computer-implemented method according to claim 1, wherein step a) comprises maintaining for each agent an individual current order file relating only to that agent.

3. (previously presented) A computer-implemented method according to claim 1, wherein step a) comprises maintaining a combined current order file relating to a plurality of agents, with said first location and first time identified for each such agent.

4. (previously presented) A computer-implemented method according to claim 1, wherein step b) comprises maintaining for each agent an individual prioritized location listing relating only to that agent.

5. (previously presented) A computer-implemented method according to claim 1, wherein step b) comprises maintaining a combined prioritized location listing relating to a plurality of agents, with each location being prioritized for one or more agents according to ability of the or each such agent to reach each location after said first time relating to the agent.

6. (previously presented) A computer-implemented method according to claim 1, further comprising the step of:

updating the current order record for said identified agent with a new first location and first time at which said agent is expected to become free after fulfilling said order.

7. (previously presented) A computer-implemented method according to claim 1, wherein said step of allocating said order comprises

   i) offering said order to said agent; and

   ii) receiving confirmation of acceptance of the order from the agent.

8. (previously presented) A computer-implemented method according to claim 1, wherein said current order record identifies locations and times relating to all current orders assigned to said agent.

9. (previously presented) A computer-implemented method according to claim 1, wherein said listing of locations identifies the priority of each location with a time at which the agent is expected to be able to reach said location.

10. (previously presented) A computer-implemented method according to claim 1, wherein said listing of locations identifies the priority of each location with a priority identifier calculated from distance between each such location and said first location, and time between the current time and said first time.

11. (previously presented) A computer-implemented method according to claim 10, wherein said distance is a true geographical distance.

12. (previously presented) A computer-implemented method according to claim 10, wherein said distance is a distance calculated in a non-linear representation of an area including said locations.

13. (previously presented) A computer-implemented method according to claim 12, wherein said representation is selected from a grid of cells to which locations are mapped, a set of groups of locations, and a mesh of elements to which locations are mapped.

14. (previously presented) A computer-implemented method according to claim 1, wherein said locations are identified as cells within a grid to which locations are mapped

15. (previously presented) A computer-implemented method according to claim 1, wherein said locations are identified as groups of locations within a set of such groups.

16. (previously presented) A computer-implemented method according to claim 1, wherein said locations are identified as elements within a mesh of elements to which locations are mapped.

17. (previously presented) A computer-implemented method according to claim 6, further comprising the step of updating the prioritized listing for said identified agent when said order has been allocated, to take account of said new first location and new first time.

18. (previously presented) A computer-implemented method according to claim 1, wherein said first time is calculated from a journey time file which records expected journey times between locations.

19. (previously presented) A computer-implemented method according to claim 1, wherein said first time is input by an operator based on an expected journey time.

20. (previously presented) A computer-implemented method according to claim 19, wherein said operator is the agent to which the current order record relates.

21. (previously presented) A computer-implemented method according to claim 1, wherein the step of maintaining said current order record includes providing access to an agent to said current order record to edit the details recorded therein.

22. (previously presented) A computer-implemented method according to claim 1, wherein said current order file further includes details of an advance order, including a second location and a second time after said first time, at which said advance order is to be fulfilled, and wherein step d) includes the step of determining whether the agent is expected to be able to finish said new location-based order with sufficient time to fulfill said advance order.

23. (previously presented) A computer-implemented method of operating an ordering server for controlling location-based orders for a plurality of mobile agents, comprising the steps of:

   a) maintaining a current order record identifying for each agent a first location and first time at which the agent is expected to become free to fulfill a new order;

   b) maintaining a prioritized listing of locations including both scheduled locations which an agent is currently due to visit and unscheduled locations which said agent is not currently due to visit, with locations in said listing being prioritized to rank both the scheduled and unscheduled locations for said agent according to availability of the agent to reach each location after said first time, said availability having been calculated for each location irrespective of whether or not said agent is currently due to visit a particular location in said listing; and

   c) updating said current order record and said listing for an agent when a new order has been assigned to said agent resulting in a new first location and first time being identified.

24. (previously presented) An ordering server for allocating location-based orders to a plurality of mobile agents associated with said server, comprising:

   a) a current order file storage area for maintaining a current order file which identifies for each agent a first location and first time at which the agent is expected to become free to fulfill a new order;

   b) a location priority listing storage area for maintaining a prioritized listing of locations including both scheduled locations which an agent is currently due to visit and unscheduled locations which said agent is not currently

due to visit, with locations in said listing being prioritized to rank both the scheduled and unscheduled locations for said agent according to availability of the agent to reach each location after said first time, said availability having been calculated for each location irrespective of whether or not said agent is currently due to visit a particular location in said listing;

c)     an input interface for receiving said location-based order and recording the location and time at which said order is to be fulfilled;

d)     a processor for determining from said prioritized listing of locations a suitable agent to fulfill said order; and

e)     an output interface for allocating said order to said identified agent.

25.     (original) An ordering server according to claim 24, wherein said input interface comprises an operator interface for an operator to input details received from an ordering party.

26.     (original) An ordering server according to claim 24, wherein said input interface is selected from a web server hosting a user interface via which ordering parties can input order details, a Wireless Application Protocol (WAP) server hosting a user interface via which ordering parties can input order details, an Interactive Voice Response (IVR) unit via which a user can input order details and a Short Messaging Service (SMS) gateway for receiving SMS messages containing order details.

27.     (original) An ordering server according to claim 24, further comprising a map database correlating real geographical locations with location identifiers for use in identifying locations in said current orders file and said listing.

28.     (original) An ordering server according to claim 24, further comprising a journey times calculator for calculating an expected journey time between two locations.

29.     (original) An ordering server according to claim 24, further comprising an agent interface for an agent to access and edit said current orders file.

30.     (cancelled)

31.     (cancelled)

32.     (cancelled)

33.  (cancelled)

34.  (cancelled)

35.  (currently amended) A computer program product ~~in~~ comprising a physical data carrier in machine readable form containing instructions which when executed in an ordering server cause ~~an~~ said ordering server to:

   a)  maintain for each agent a current order record identifying a first location and first time at which the agent is expected to become free to fulfill a new order;

   b)  maintain for each agent a prioritized listing of locations in the vicinity of said first location including both scheduled locations which an agent is currently due to visit and unscheduled locations which said agent is not currently due to visit, with locations in said listing being prioritized to rank both the scheduled and unscheduled locations for said agent according to availability of the agent to reach each location after said first time, said availability having been calculated for each location irrespective of whether or not said agent is currently due to visit a particular location in said listing;

   c)  receive said location-based order and recording the location and time at which said order is to be fulfilled;

   d)  determine from said prioritized listing of locations a suitable agent to fulfill said order; and

   e)  allocate said order to said identified agent.

36.  (previously presented) A communications network comprising an ordering server for allocating location-based orders to a plurality of mobile agents associated with said server, comprising:

   a)  a current order file storage area for maintaining a current order file which identifies for each agent a first location and first time at which the agent is expected to become free to fulfill a new order;

   b)  a location priority listing storage area for maintaining a prioritized listing of locations including both scheduled locations which an agent is currently due to visit and unscheduled locations which said agent is not currently

due to visit, with locations in said listing being prioritized to rank both the scheduled and unscheduled locations for said agent according to availability of the agent to reach each location after said first time, said availability having been calculated for each location irrespective of whether or not said agent is currently due to visit a particular location in said listing;

c) an input interface for receiving said location-based order and recording the location and time at which said order is to be fulfilled;

d) a processor for determining from said prioritized listing of locations a suitable agent to fulfill said order; and

e) an output interface for allocating said order to said identified agent.

**Remarks**

<u>Claim rejections 35 USC § 101</u>

Method claims 1-22 and 35 stand rejected under a new ground of rejection beginning at page 11 of the Decision on Appeal.

*Method Claims 1-22*

Claim 1 has been amended to recite the additional limitation that the method is carried out by an ordering server.

Applicants noted that independent method claim 23 directed to a "computer-implemented method of operating an ordering server for controlling location-based orders for a plurality of mobile agents" was not rejected under 35 USC § 101. Like claim 1, claim 23 shares certain of the method steps (in particular steps (a) and (b)), but unlike claim 1, claim 23 is limited to a "particular machine", i.e. an ordering server.

Accordingly, the amendment to claim 1 now similarly ties the method to a "particular machine" as required by the *In re Bilski* decision, and it is respectfully submitted that this overcomes the rejection of independent claim 1 and dependent claims 2-22.

*Method Claim 35*

Claim 35 was rejected for being directed to a computer program product per se, based on the Interim Examination Instructions which require the claim to be directed to one of the four patent-eligible subject-matter categories.

Claim 35 has now been limited to require a physical data carrier, thereby bringing the claimed subject-matter into the patent-eligible categories.
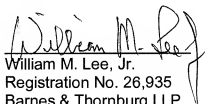
<u>Claim rejections 35 USC § 103</u>

Claims 30-34 have been cancelled without prejudice.

It is therefore submitted that this application is now in condition for allowance, in view of the Board's Decision of November 6, 2009. Claims 30-34 have been cancelled, and therefore all remaining rejections on the basis of the prior art have been overcome in view of the Board's Decision. Furthermore, the new grounds of rejection of claims 1-22 and 35 have been appropriately addressed, and statutory subject matter is now correctly set forth. Given that, it is believed that all claims remaining are now in condition for allowance, and such action is solicited.

January 6, 2010

Respectfully submitted,

William M. Lee, Jr.
Registration No. 26,935
Barnes & Thornburg LLP
P.O. Box 2786
Chicago, Illinois 60690-2786
(312) 214-4800